

**AMENDMENTS TO THE CLAIMS:**

Kindly replace all prior listings of the claims, with that which appears below, in which Claims 16-17 and 22 have been cancelled and Claims 1, 10-12, 18 and 21 have been amended to read as follows:

1. **(Currently Amended)** A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

(i) an epoxy resin, and

(ii) (meth)acrylate component; and

(b) a second component, comprising:

(i) an epoxy resin hardener, and

(ii) a catalyst comprising a transition

metal complex,

wherein the second component further includes an accelerator

selected from the group consisting of nonylphenol,

dinonylphenol, piperazine, triethanolamine, water, alcohols,

acids and their salts, and combinations thereof, and wherein

cured reaction products of the composition demonstrate at least

substantial maintenance of at least one physical property

selected from the group consisting of fixture time, adhesion

strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

2.     **(Original)**         The composition according to Claim 1, wherein the epoxy resin is a member selected from the group consisting of C<sub>4</sub>-C<sub>28</sub> alkyl glycidyl ethers; C<sub>2</sub>-C<sub>28</sub> alkyl- and alkenyl-glycidyl esters; C<sub>1</sub>-C<sub>28</sub> alkyl-, mono- and poly-phenol glycidyl ethers; polyglycidyl ethers of pyrocatechol, resorcinol, hydroquinone, 4,4'-dihydroxydiphenyl methane, 4,4'-dihydroxy-3,3'-dimethyldiphenyl methane, 4,4'-dihydroxydiphenyl dimethyl methane, 4,4'-dihydroxydiphenyl methyl methane, 4,4'-dihydroxydiphenyl cyclohexane, 4,4'-dihydroxy-3,3'-dimethyldiphenyl propane, 4,4'-dihydroxydiphenyl sulfone, and tris(4-hydroxyphenyl)methane; polyglycidyl ethers of the chlorination and bromination products of the above-mentioned diphenols; polyglycidyl ethers of novolacs; polyglycidyl ethers of diphenols obtained by esterifying ethers of diphenols obtained by esterifying salts of an aromatic hydrocarboxylic acid with a dihaloalkane or dihalogen dialkyl ether; polyglycidyl ethers of polyphenols obtained by condensing phenols and long-chain halogen paraffins containing at least two halogen atoms; N,N'-diglycidyl-aniline; N,N'-dimethyl-N,N'-diglycidyl-4,4'-diaminodiphenyl methane; N,N,N',N'-

tetraglycidyl-4,4'-diaminodiphenyl methane; N,N'-diglycidyl-4-aminophenyl glycidyl ether; N,N,N',N'-tetraglycidyl-1,3-propylene bis-4-aminobenzoate; phenol novolac epoxy resin; cresol novolac epoxy resin sorbitol glycidyl ether; and combinations thereof.

3.     **(Original)**       The composition according to Claim 1, wherein the epoxy resin includes the combination of bisphenol A-type epoxy resin and sorbitol glycidyl ether.

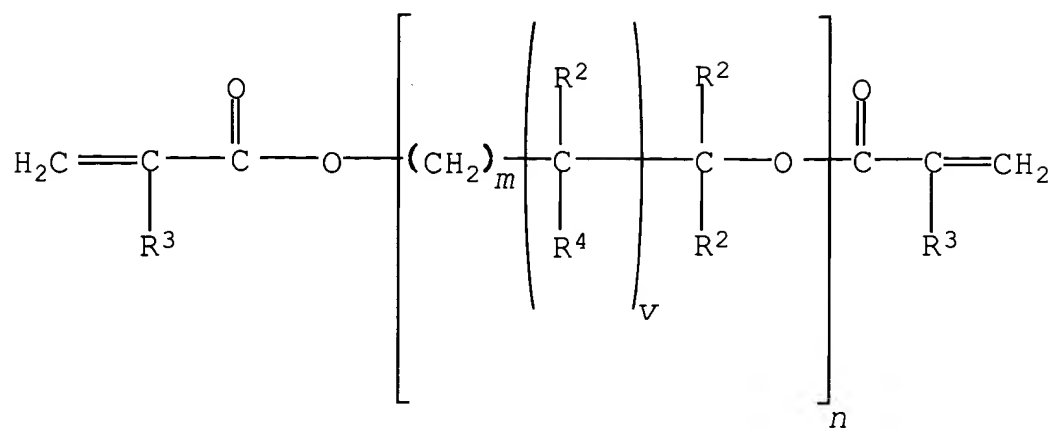
4.     **(Original)**       The composition according to Claim 1, wherein the epoxy resin is present in an amount within the range of about 5 to about 85 weight percent, based on the total weight of the first component.

5.     **(Original)**       The composition according to Claim 1, wherein the (meth)acrylate component is a member selected from the group consisting of polyethylene glycol di(meth)acrylates, tetrahydrofuran (meth)acrylates and di(meth)acrylates, hydroxypropyl (meth)acrylate, hexanediol di(meth)acrylate trimethylol propane triacrylate, trimethylol propane tri(meth)acrylate, diethylene glycol di(meth)acrylate, triethylene glycol di(meth)acrylate, tetraethylene glycol di(meth)acrylate, benzyl (meth)acrylate, dipropylene glycol di(meth)acrylate, di-(pentamethylene glycol) di(meth)acrylate, tetraethylene diglycol diacrylate, diglycerol

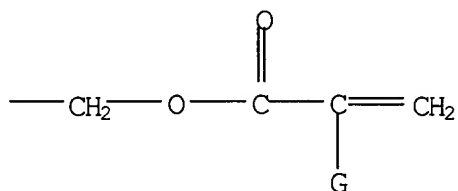
tetra(meth)acrylate, tetramethylene di(meth)acrylate, ethylene di(meth)acrylate, neopentyl glycol diacrylate, and bisphenol-A di(meth)acrylates.

6.     **(Original)**       The composition according to Claim 1, wherein the (meth)acrylate component is within the structure represented by  $H_2C=CGCO_2R^1$ , wherein G may be hydrogen, halogen or alkyl groups having from 1 to about 4 carbon atoms, and  $R^1$  may be selected from alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkaryl, aralkyl or aryl groups having from 1 to about 16 carbon atoms, any of which may be optionally substituted or interrupted as the case may be with silane, silicon, oxygen, halogen, carbonyl, hydroxyl, ester, carboxylic acid, urea, urethane, carbonate, amine, amide, sulfur, sulfonate, and sulfone.

7.     **(Original)**       The composition according to Claim 1, wherein the (meth)acrylate component is a member selected from the group consisting of reaction products of diglycidylether of bisphenol A or polyglycols with (meth)acrylic acid forming a (meth)acrylate ester, with the polyglycols of which corresponding to the structure shown below:



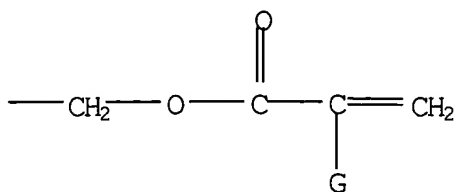
wherein  $\text{R}^2$  may be selected from hydrogen, alkyl groups having from 1 to about 4 carbon atoms, hydroxyalkyl groups having from 1 to about 4 carbon atoms or



wherein G is as defined above;

$\text{R}^3$  may be selected from hydrogen, halogen, and alkyl groups of from 1 to about 4 carbon atoms;

$\text{R}^4$  may be selected from hydrogen, hydroxy and



m is an integer equal to at least 1;

v is 0 or 1; and

n is an integer equal to at least 1.

8.     **(Original)**       The composition according to Claim 1, further comprising an inorganic and/or organic filler component selected from the group of glass fibers, synthetic fibers, reinforcing silicas, ceramic fiber whiskers, aluminum nitride, boron nitride, zinc oxide, magnesium oxide, aluminum oxide, silicon nitride, silica-coated aluminum nitride, quartz, natural fibers from plant and/or animal sources, and combinations thereof.

9.     **(Original)**       The composition according to Claim 1, wherein the inorganic and/or organic filler component is present in an amount within the range of about 0.5 to about 35 weight percent, based on the total weight of the epoxy resin component.

10.    **(Currently Amended)** A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

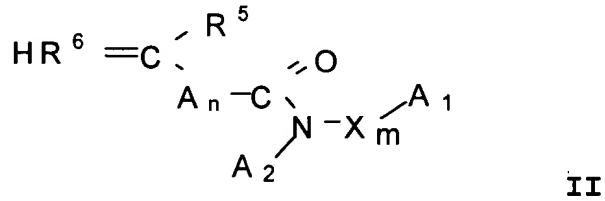
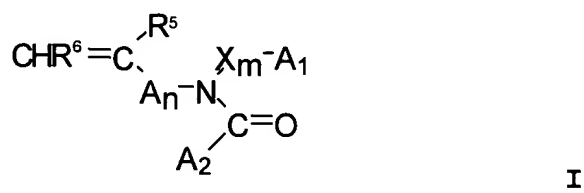
(i) an epoxy resin, and

(ii) (meth)acrylate component; and

(b) a second component, comprising:

- (i) an epoxy resin hardener, and
- (ii) a catalyst comprising a transition  
metal complex

~~The composition according to Claim 1,~~ further comprising an  
 adhesion promoter selected from the group consisting of:



wherein R<sup>5</sup> and R<sup>6</sup> may be the same or different and may be  
 selected from hydrogen or C<sub>1-3</sub> alkyl, or either of which may join  
 to form a cyclic ring structure of between 4 and 10 ring atoms  
 with themselves, or with A<sub>1</sub> or A<sub>2</sub> as defined below;

X and A may be the same or different and may be selected  
 from -(CR<sup>7</sup>R<sup>8</sup>)<sub>p</sub>-, where R<sup>7</sup> and R<sup>8</sup> may be the same or different and  
 may be selected from

hydrogen or C<sub>1-3</sub> alkyl, and p is an integer of from 0 to 3,

an alkylene group,

an arylene group,

a carbonyl group, -CO-,

heteroatoms, and combinations thereof;

m and n may be the same or different and are 0 or 1; and

A<sub>1</sub> and A<sub>2</sub> may be the same or different and may be selected from hydrogen, C<sub>1-3</sub> alkyl, alkenyl, aryl, aryl heterocyclic, acidic groups, and basic groups, and wherein cured reaction products of the composition demonstrate at least substantial maintenance of at least one physical property selected from the group consisting of fixture time, adhesion strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

11. **(Currently Amended)** A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

(i) an epoxy resin, and

(ii) (meth)acrylate component; and

(b) a second component, comprising:

(i) an epoxy resin hardener, and

(ii) a catalyst comprising a transition



metal complex

~~The composition according to Claim 1~~, wherein the epoxy resin hardener of the second component includes polyether amine-based hardeners selected from the group consisting of oxyethylene diamines, oxyethylene triamines, polyoxyethylene diamines, polyoxyethylene triamines, oxypropylene diamines, oxypropylene triamines, polyoxypropylene diamines, polyoxypropylene triamines, dimethylene glycol dipropyl amine and/or derivatives and adducts thereof, and combinations thereof, and wherein cured reaction products of the composition demonstrate at least substantial maintenance of at least one physical property selected from the group consisting of fixture time, adhesion strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

12. **(Currently Amended)** A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

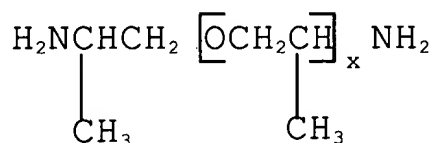
(i) an epoxy resin, and

(ii) (meth)acrylate component; and

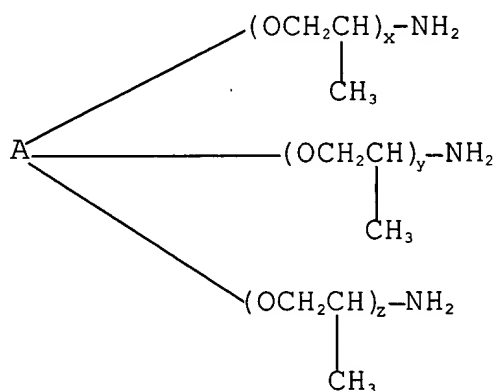
(b) a second component, comprising:

(i) an epoxy resin hardener, and

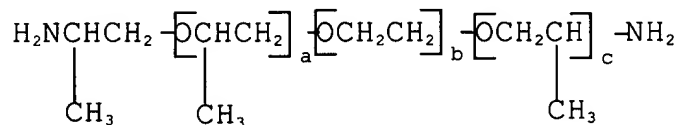
(ii) a catalyst comprising a transition metal complex ~~The composition according to Claim 1~~, wherein the epoxy resin hardener of the second component includes polyether amine-based hardeners selected from the group consisting of compounds of the formula:



wherein x is from about 2.6 to about 33.1; compounds of the formula:



wherein A is a residue of glycerin or trimethylol propane, and  $x+y+z$  is from about 5 to about 85; compounds represented by the formula:



wherein a+c is about 2.5 and b is from about 2.5 to about 40.5; and combinations thereof, wherein cured reaction products of the composition demonstrate at least substantial maintenance of at least one physical property selected from the group consisting of fixture time, adhesion strength, and adhesion strength over time, after exposure to at least one condition selected from the group consisting of elevated temperatures, moisture and a chemical environment.

13. **(Original)** The composition according to Claim 1, wherein the transition metal complex is a member within the structure,  $M_e[CW_3-CO-CH=C(O^-)-CW'_3]_2$ , wherein  $M_e$  is a member selected from the group consisting of Fe, Ti, Ru, Co, Ni, Cr, Cu, Mn, Pd, Ag, Rh, Pt, Zr, Hf, Nb, V, and Mo, and W and W' may be the same or different and may be selected from H, and halogens.

14. **(Original)** The composition according to Claim 1, wherein the transition metal complex is a member selected from the group consisting of platinum (II) acetylacetonate, cobalt (II) acetylacetonate, cobalt (III) acetylacetonate, nickel (II) acetylacetonate, iron (II) acetylacetonate, iron (III) acetylacetonate, chromium (II) acetylacetonate, chromium (III) acetylacetonate, manganese (II) acetylacetonate, manganese (III) acetylacetonate and copper (II) acetylacetonate, and

carboxylates and/or complexes of any of Fe, Ti, Ru, Co, Ni, Cr, Cu, Mn, Pd, Ag, Rh, Pt, Zr, Hf, Nb, V, and Mo.

15. **(Original)** The composition according to Claim 1, wherein the transition metal complex is Cu(II)ACAC.

Claims 16-17. **(Cancelled)**.

18. **(Currently Amended)** The composition according to Claim 1 ~~17~~, wherein the accelerator is present in an amount up to about 50 weight percent, based on the total weight of the epoxy resin hardener second component.

19. **(Original)** The composition according to Claim 1, wherein the first component:second component ratio is in the range of about 1:1 to about 10:1.

20. **(Original)** The composition according to Claim 1, wherein the first component:second component ratio is about 2:1.

21. **(Currently Amended)** The composition according to Claim 1, ~~for use in bonding together~~ in combination with and between two mated substrates, at least one of which is constructed of metals selected from the group consisting of steel and aluminum; and synthetics constructed from materials selected from the group consisting of glass cloth phenolics, phenolic composites and plastics, wherein the composition when cured bonds together the two mated substrates.

22. **(Cancelled)** .

23. **(Original)**      A process for using the composition according to Claim 1 to bond together two substrates, comprising the steps of:

applying the composition onto a surface of a first substrate; and .

mating a surface of a second substrate in abutting relationship with the composition-applied first substrate to form an assembly, and maintaining the assembly in the mated abutting relationship for a time sufficient to allow the composition to cure.

24. **(Original)**      A process for using the composition according to Claim 1 to bond together two substrates, comprising the steps of:

applying the composition onto a surface of at least one of a first substrate or a second substrate, and maintaining each of the composition-applied substrate(s) away from the other substrate for a time sufficient to allow the composition to cure somewhat; and

mating the substrates in abutting relationship to form an assembly.

25. **(Original)** A process for using the composition according to Claim 1 to bond together two substrates, comprising the steps of:

mating in spaced-apart relationship a first substrate with a second substrate; and

applying within the space the composition and maintaining in an assembly the first substrate and the second substrate for a time sufficient to allow the composition to cure.

26. **(Previously Presented; Allowed)** A two-part, room-temperature curable composition having high flash point and low odor, comprising:

(a) a first component, comprising:

(i) an epoxy resin, and

(ii) a (meth)acrylate component comprising at least one member selected from the group consisting of compounds of the formula  $H_2C=CGCO_2R^1$ , wherein G is hydrogen, halogen or alkyl groups having from 1 to about 4 carbon atoms, and  $R^1$  is alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkaryl, aralkyl or aryl groups having from 1 to about 16 carbon atoms, any of which may be optionally substituted or interrupted with oxygen, halogen, carbonyl, hydroxyl, ester, carboxylic acid, urea, urethane, carbonate, amine, amide, sulfur, sulfonate, and

sulfone; (meth)acrylate compounds having a plurality of (meth)acrylate groups thereon; and mixtures thereof;

(b) a second component, comprising:

(i) a polyether amine-based epoxy resin hardener, and

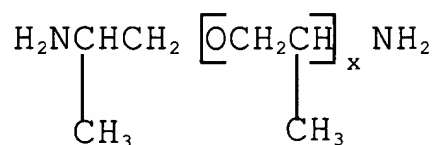
(ii) a catalyst comprising a transition metal complex.

27. **(Previously Presented; Allowed)** The composition according to Claim 26, wherein the epoxy resin hardener of the second component is selected from the group consisting of oxyethylene diamines, oxyethylene triamines, polyoxyethylene diamines, polyoxyethylene triamines, oxypropylene diamines, oxypropylene triamines, polyoxypropylene diamines, polyoxypropylene triamines, dimethylene glycol dipropyl amine and/or derivatives and adducts thereof, and combinations thereof.

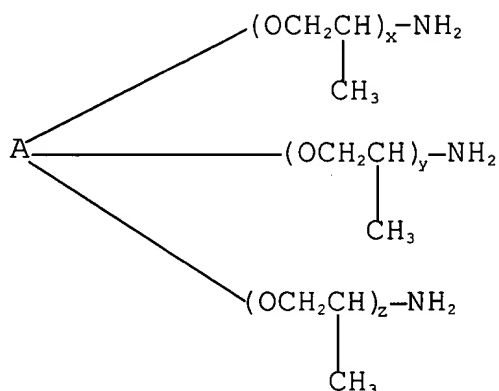
28. **(Previously Presented; Allowed)** The composition according to Claim 27, wherein the epoxy resin includes the combination of a bisphenol A-type epoxy resin and sorbitol glycidyl ether.

29. **(Previously Presented; Allowed)** The composition according to Claim 28, wherein the epoxy resin hardener of the second component is selected from the group consisting of

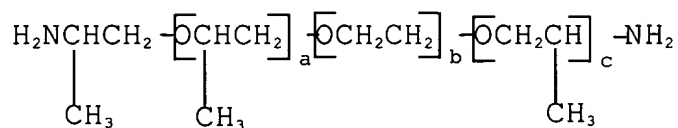
polyether amine-based hardeners selected from the group  
 consisting of compounds of the formula:



where x is from about 2.6 to about 33.1; compounds of the  
 formula:



where A is a residue of glycerin or trimethylol propane, and  
 x+y+z is from about 5 to about 85; compounds represented by the  
 formula:



where a+c is about 2.5 and b is from about 2.5 to about 40.5;  
 and combinations thereof.



30. (**Previously Presented; Allowed**) The composition of Claim 29, wherein the (meth)acrylate component consists of compounds of the formula  $H_2C=CGCO_2R^1$ , wherein G is hydrogen, halogen or alkyl groups having from 1 to about 4 carbon atoms, and  $R^1$  is alkyl, cycloalkyl, alkenyl, cycloalkenyl, alkaryl, aralkyl or aryl groups having from 1 to about 16 carbon atoms, any of which may be optionally substituted or interrupted with oxygen, halogen, carbonyl, hydroxyl, ester, carboxylic acid, urea, urethane, carbonate, amine, amide, sulfur, sulfonate, and sulfone.